University of Agronomic Sciences and Veterinary Medicine of Bucharest
Faculty of Horticulture

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Pawpaw (*Asimina triloba* Dunal) seed germination dynamics under the influence of some endogen and exogen factors.

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Introduction

- *Asimina triloba* is a small tree native to the eastern United States and Canada.

Introduction

Ultraviolet (UV) ray is a form of electromagnetic radiation with a wavelength from 10 (with a corresponding frequency around 30 PHZ) to 400 nm (750 THz), shorter than that of visible light, but longer than the rays X.

We used UV rays in order to try to shorten the germination period and observe their effect on sprouted plants.

Materials and Methods

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Results and discussions

2019		Not treated	Treated UV
Genotype	Date of sowing	Date of germination	
R1P1	11.1.2019	6.3.2019	13.3.2019
R1P2	11.1.2019	13.3.2019	13.3.2019
R1P3	11.1.2019	14.3.2019	13.3.2019
R1P4	11.1.2019	14.3.2019	13.3.2019
R1P5	11.1.2019	20.3.2019	13.3.2019
R1P6	11.1.2019	13.3.2019	13.3.2019
R1P7	11.1.2019	22.3.2019	13.3.2019
R1P8	11.1.2019	14.3.2018	13.3.2019
R1P9	11.1.2019	20.3.2019	13.3.2019
R1P10	11.1.2019	13.3.2019	13.3.2019
R1P11	11.1.2019	20.3.2019	14.3.2019
R2P1	11.1.2019	13.3.2019	13.3.2019
Allegheny 1	11.1.2019	20.3.2019	13.3.2019
Allegheny 2	11.1.2019	14.3.2019	13.3.2019
R2P2	11.1.2019	6.3.2019	13.3.2019
Potomac	11.1.2019	13.3.2019	13.3.2019
R2P3	11.1.2019	22.3.2019	22.3.2019
R2P4	11.1.2019	13.3.2019	13.3.2019
R2P5	11.1.2019	6.3.2019	20.3.2019
R2P6	11.1.2019	13.3.2019	13.3.2019
R2P7	11.1.2019	20.3.2019	20.3.2019
R2P8	11.1.2019	14.3.2019	14.3.2019
R2P9	11.1.2019	13.3.2019	14.3.2019
R2P10	11.1.2O19	20.3.2019	27.3.2019
R2P11	11.1.2019	13.3.2019	20.3.2019
SIMINA	11.1.2019	6.3.2019	13.3.2019
ASIMINA TRILOBA	11.1.2019		
[illegible]	[illegible]	[illegible]	[illegible]

Results and discussions

	2020	Not treated	Treated UV
Genotype	Date of sowing		Date of germination
R1P1	01.02.2020	24.03.2020	18.03.2020
R1P2	01.02.2020	18.03.2020	18.03.2020
R1P3	01.02.2020	04.04.2020	19.04.2020
R1P4	01.02.2020	23.03.2020	18.03.2020
R1P6	01.02.2020	28.03.2020	20.03.2020
R1P7	01.02.2020	20.03.2020	31.03.2020
R1P8	01.02.2020	18.03.2020	13.03.2020
R1P9	01.02.2020	28.03.2019	20.03.2020
R1P10	01.02.2020	18.03.2020	16.03.2020
R1P11	01.02.2020	18.03.2020	21.03.2020
R2P1	01.02.2020	20.03.2020	13.03.2020
R2P2	01.02.2020	24.03.2020	21.03.2020
R2P4	01.02.2020	18.03.2020	18.03.2020
R2P5	01.02.2020	18.03.2020	18.03.2020
R2P6	01.02.2020	18.03.2020	16.03.2020
R2P7	01.02.2020	16.03.2020	18.03.2020
R2P8	01.02.2020	27.03.2020	16.03.2020
R2P9	01.02.2020	13.03.2020	16.03.2020
R2P10	01.02.2020	07.03.2020	24.03.2020
R2P11	01.02.2020	09.03.2020	18.03.2020
L-NS	01.02.2020	24.03.2020	01.04.2020
WABASH	01.02.2020		
WILSON	01.02.2020	13.03.2020	18.03.2020
ALLEGHENY	01.02.2020	18.03.2020	18.03.2020
250-30	01.02.2020	30.03.2020	23.03.2020
MJ	01.02.2020	28.03.2020	18.03.2020
R2C	01.02.2020	08.03.2020	16.03.2020
RP	08.02.2020	16.03.2020	13.03.2020

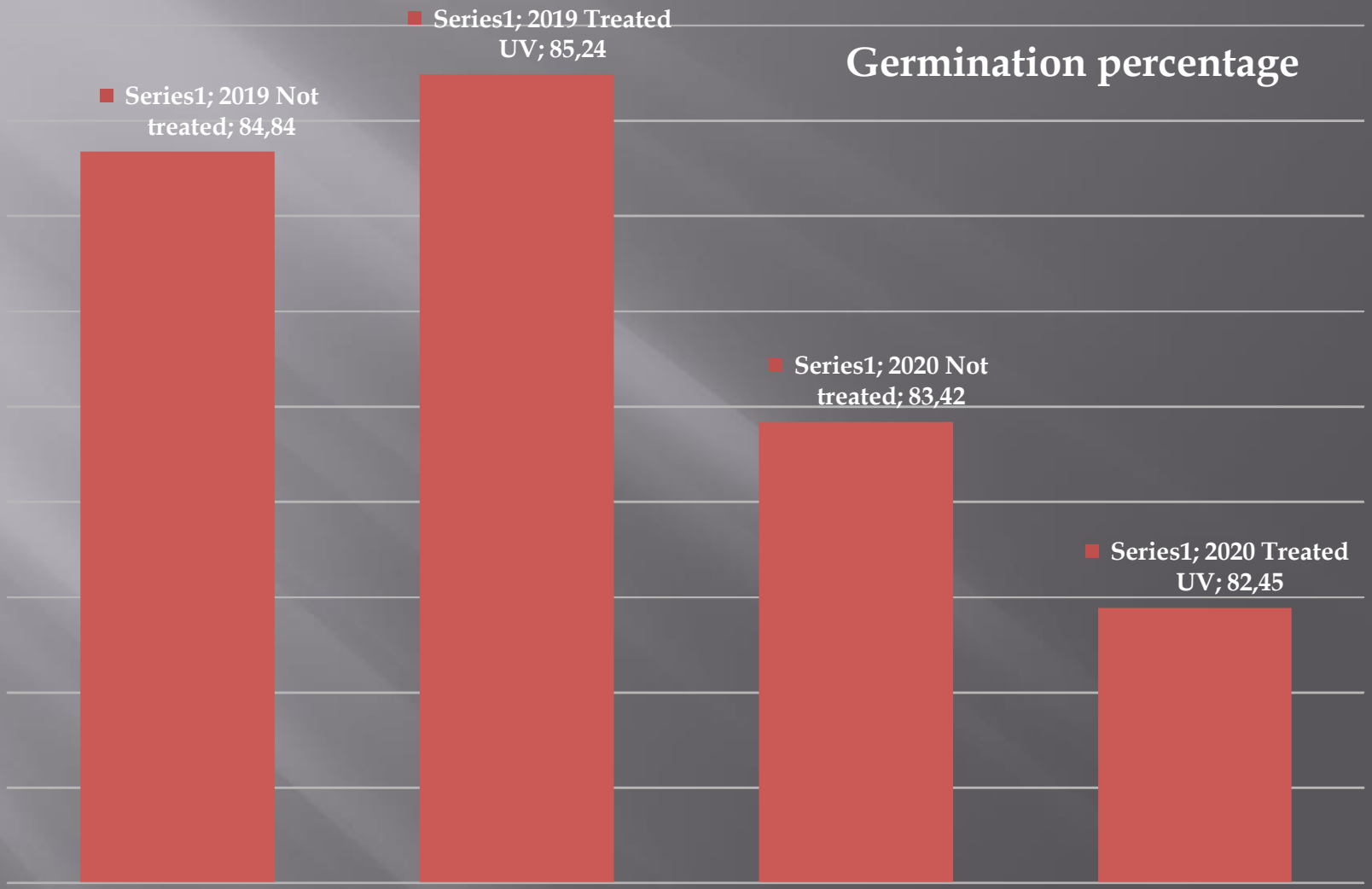
Results and discussions

2019	Germination percentage	
Genotype	Not Treated	treated UV
R1P1	70,73	58,54
R1P2	87,50	100,00
R1P3	91,67	91,67
R1P4	100,00	80,00
R1P5	100,00	100,00
R1P6	96,97	93,94
R1P7	100,00	80,00
R1P8	61,54	100,00
R1P9	100,00	83,33
R1P10	90,48	100,00
R1P11	76,47	100,00
R2P1	85,33	86,67
Allegheny 1	86,65	85,22
Allegheny 2	100,00	94,12
R2P2	100,00	100,00
Potomac	100,00	83,33
R2P3	76,00	80,77
R2P4	73,33	68,75
R2P5	90,48	72,73
R2P6	100,00	85,71
R2P7	92,00	96,00
R2P8	91,43	82,86
R2P9	77,78	100,00
R2P10	100,00	100,00
R2P11	50,00	87,50
SIMINA	0,00	0,00
ASIMINA TRILOBA	90,48	90,48
RP	84,77	85,24

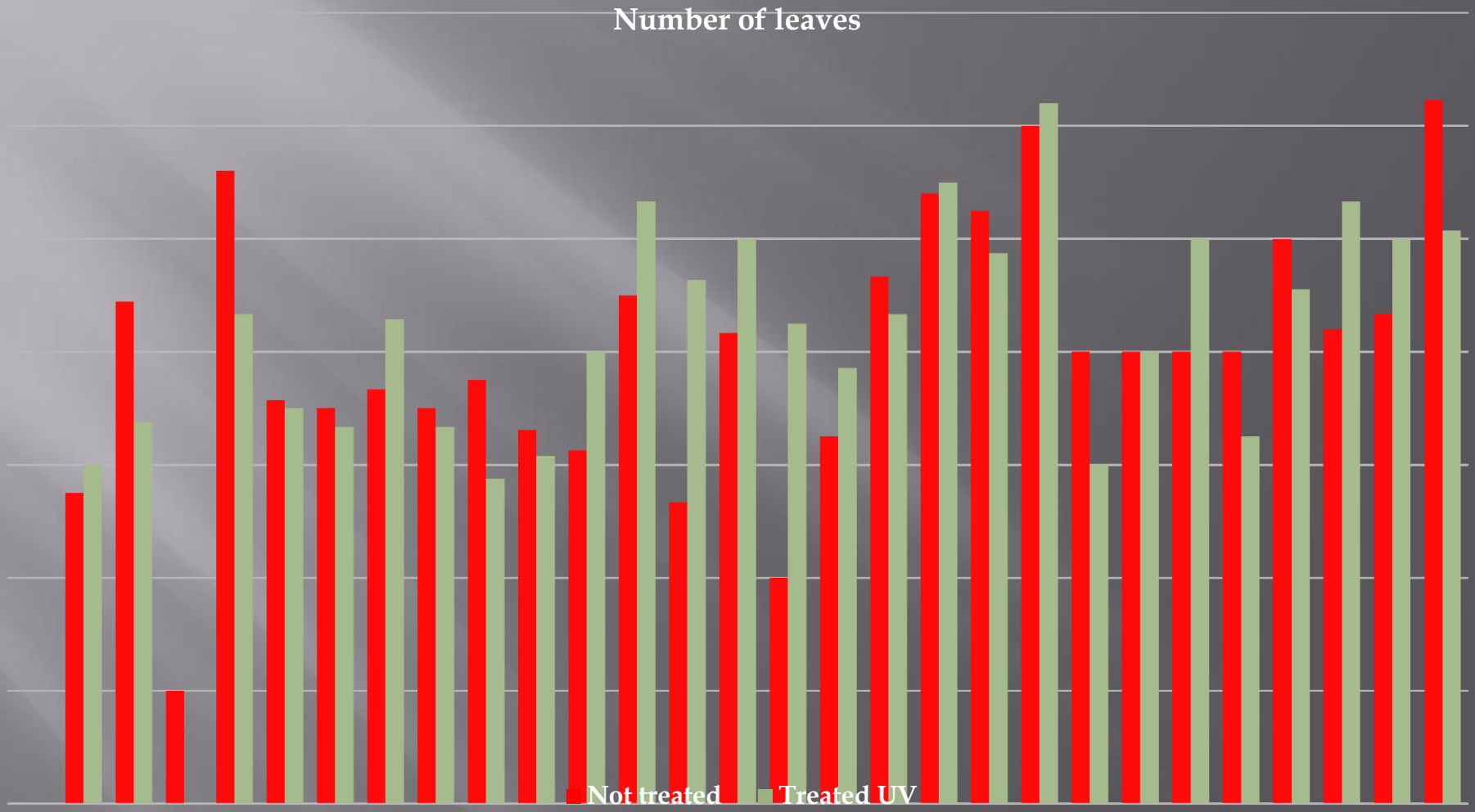
Results and discussions

2020	Germination percentage	
Genotype	Not treated	Treated UV
R1P1	100,00	100,00
R1P2	90,00	88,89
R1P3	100,00	0,00
R1P4	100,00	60,00
R1P6	87,50	100,00
R1P7	50,00	75,00
R1P8	85,71	87,50
R1P9	80,00	75,00
R1P10	100,00	100,00
R1P11	100,00	92,86
R2P1	100,00	75,00
R2P2	80,00	75,00
R2P4	81,82	100,00
R2P5	100,00	100,00
R2P6	40,00	80,00
R2P7	66,67	100,00
R2P8	100,00	100,00
R2P9	83,33	80,00
R2P10	100,00	100,00
R2P11	100,00	83,33
L-NS	100,00	100,00
WABASH	0,00	0,00
WILSON	50,00	100,00
ALLEGHENY	62,50	100,00
250-30	100,00	100,00
MJ	100,00	100,00
R2C	100,00	75,00
R2P9'	75,00	50,00
RP	86,67	93,33

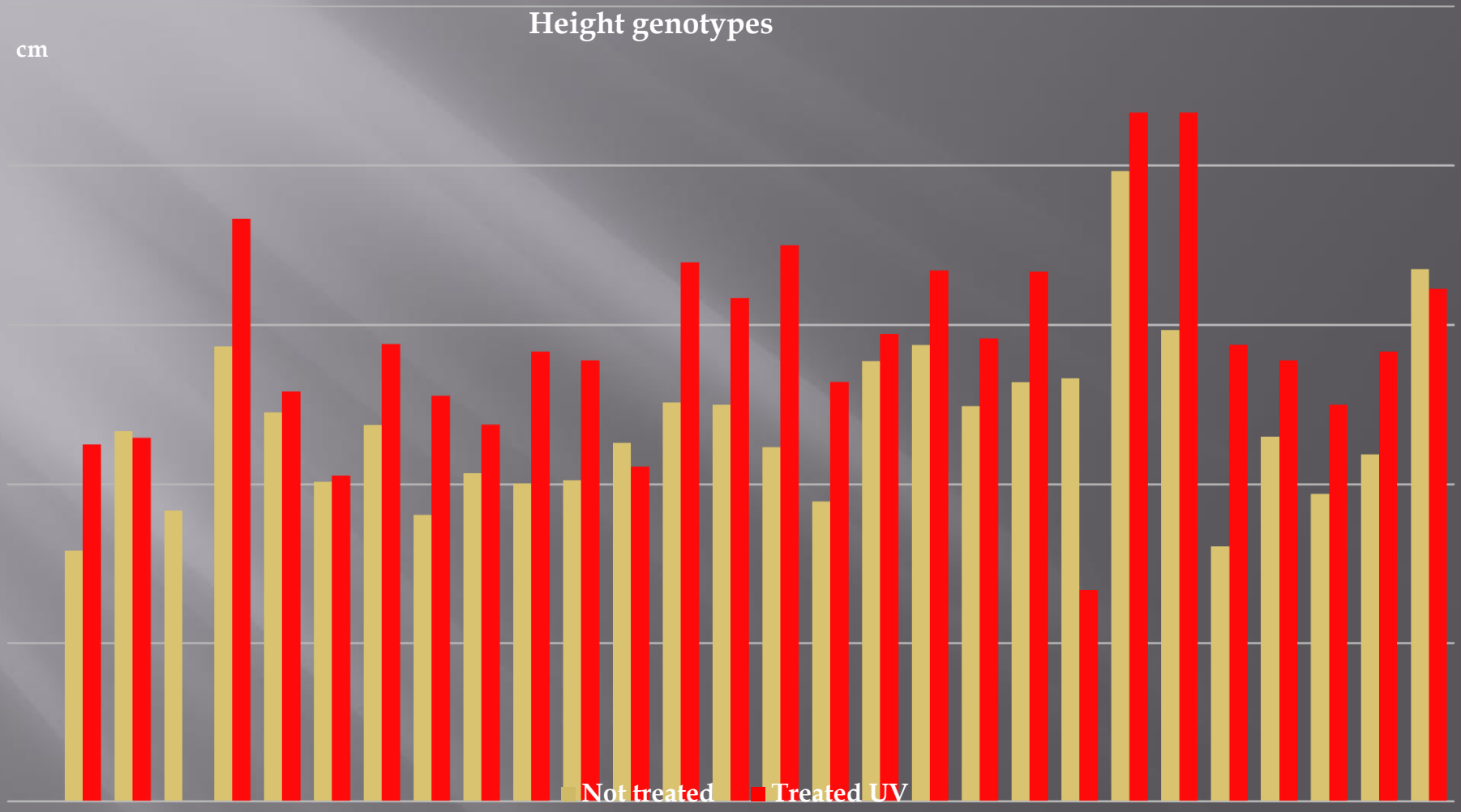
Results and discussions


Germination percentage
Series1; 2019 Not treated; 84,84
Series1; 2019 Treated UV; 85,24
Series1; 2020 Not treated; 83,42
Series1; 2020 Treated UV; 82,45

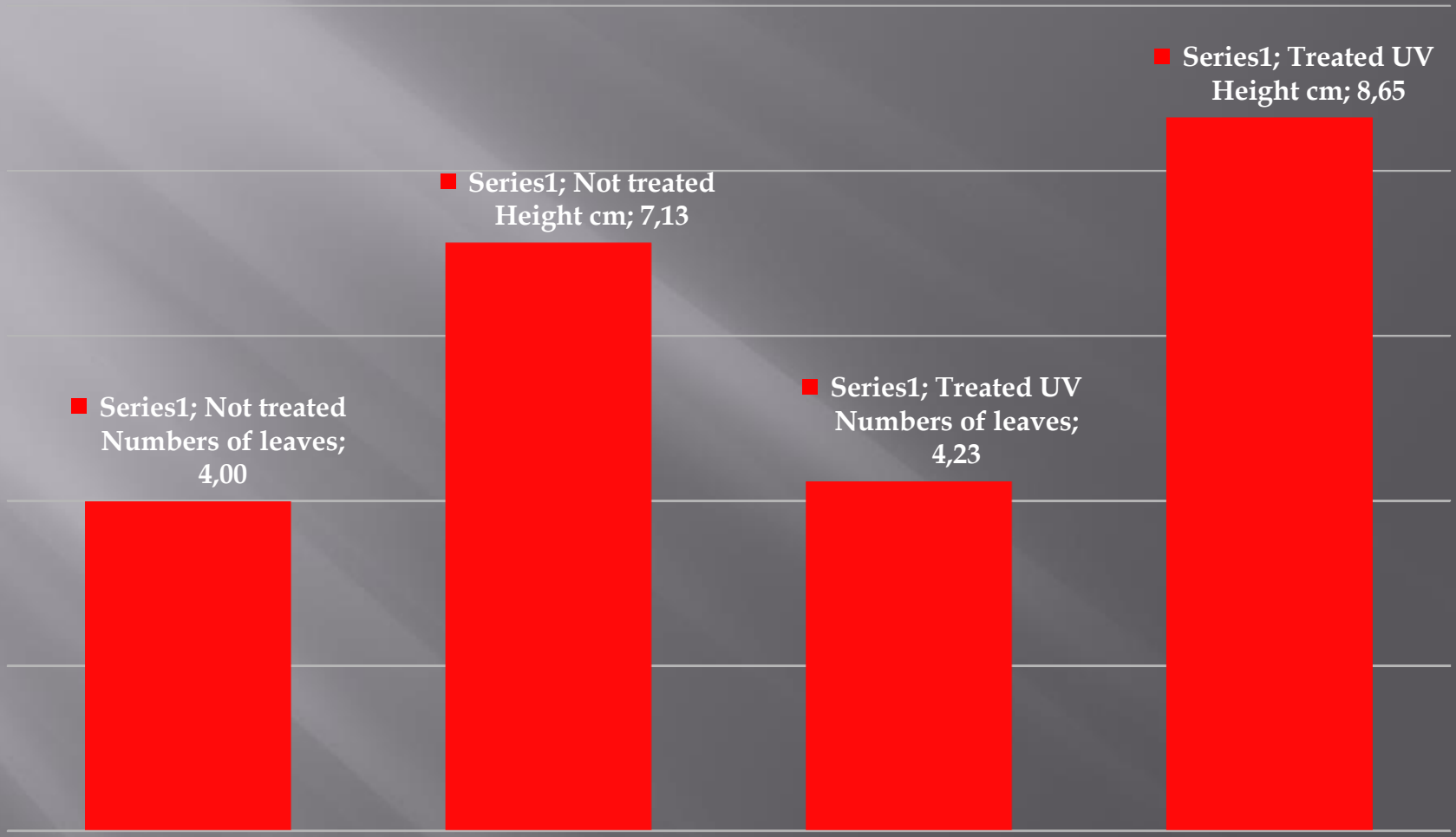
Results and discussions



Results and discussions



Results and discussions



Thank you for your attention!